

Notice of Allowability

Application No.

09/597,974

Examiner

Thomas M. Ho

Applicant(s)

ROBERTS ET AL.

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/19/06.
2. ☒ The allowed claim(s) is/are 1-59.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 6/20/2000
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

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1. *Claims 1-59 are pending.*

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a communication with Kent Daniels Reg. No 44, 206 at (613) 780-8673 on 8/31/06 sent as a follow up to a telephonic interview which took place on 8/30/06.

613
Currently Amended

1. ~~[Previously Presented]~~ A method of validating a connection mapped between first and second end-nodes via at least one intermediate node in a communications network, the method comprising the steps of:

a) at the first end-node, inserting performance monitor (PM) information into a predetermined location within a data signal conveyed through the connection, wherein the PM information bypasses pointer processor state machines in any nodes intermediate the end-points of the connection;

b) at the at least one intermediate node:

i) extracting the PM information from the predetermined location within the signal received at the intermediate node;

ii) buffering the extracted PM information; and

iii) reinserting the buffered PM information into the predetermined location within the signal prior

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to transmitting the data signal toward the second end-node; and

c) at the second end-node, extracting the PM information from the data signal.

Currently Amended

68 ✓ 35. . [~~Previously Presented~~] An apparatus for validating a connection

mapped between first and second end-nodes via at least one intermediate node in a communications network, the apparatus comprising:

a framer for extracting performance monitoring (PM) information from a data signal being

conveyed through the connection, wherein the PM information

bypasses pointer processor state machines in any nodes

intermediate the end-points of the connection;

means for buffering the extracted PM information while the data signal is pointer processed; and

means for inserting the buffered PM information into the data signal prior to forwarding the data signal.

Reasons for Allowance

In reference to claim 1:

Tektronix, Inc. "SONET Telecommunications" discloses a method of validating a connection mapped between first and second end-nodes via at least one intermediate node in a

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communications network, where the validation arises from the internal connection validation mechanism of SONET packets, the method comprising steps of:

a) at the first end-node, inserting performance monitor (PM) information into a predetermined location within a data signal conveyed through the connection,

- the first end-node is the first PTE, (Figure 27, Point to Multipoint, p.22)
- Where the Performance monitor information has a predetermined location in the Section Overhead of the header. Tektronix "SONET Telecommunications" page 7, "Section Overhead"

b) at the at least one intermediate node, where the intermediate node is the SONET regenerator node. (Figure 26, p.22) & (Figure 27, p. 22)

iii) reinserting the buffered PM information into the predetermined location within the signal prior to transmitting the data signal toward the second end-node, b , where "Regenerator" p.19 discloses that the regenerator replaces the Section overhead, which contains the PM information page 7, "Section Overhead", thereby reinserting the data by rewriting it to the new signal to be transmitted.

Tektronix fails to explicitly state

i) extracting the PM information from the predetermined location within the signal received at the intermediate node.

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ii) buffering the extracted PM information.

Tektronix however discloses that the PM information is located in a predetermined location within the signal at the section overhead. In order for the PM information to actually be of use, at some point in the communication, it would be necessary to extract it and analyze it for inconsistencies and errors. Once this data is extracted, it would have to be stored somewhere for comparison and analysis, thereby "buffering" the extracted PM information.

Tektronix appears to imply however, that some correction and performance monitoring extraction and comparison is performed at the Section overhead. For example. Figure 6 discloses Section overhead as the overhead used between the regenerator node and the PTE node. Furthermore, p.22 discloses under "Regenerator" that the regenerator clocks itself off the received signal, indicating that some reading or extraction of the data is performed.

Furthermore, at the REG node, the Section overhead is replaced.

While it is not explicitly disclosed that extraction and buffering of the PM data in the Section overhead between the PTE node and REG node is performed, it would have been obvious to one of ordinary skill in the art at the time of invention to analyze (extracting and buffering) the performance monitoring data of the section overhead to make sure the signal had no errors in the transmission of the SONET signal between the PTE node and the REG node, before rewriting it.

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However neither Tektronix, nor the SONET standard, nor any other prior art of record has been found to recite the limitation: *wherein the PM information bypasses pointer processor state machines in any nodes intermediate the end-points of the connection;* The Examiner has also not found any art which would make such modification obvious. Accordingly the rejections have been withdrawn and claims 1 and 35 are allowable.

Claims 2-34, 36-59 are allowable because their independent claims are allowable.

Conclusion

3. The following art not relied upon is made of record:
- US patent 5920705 discloses a method of efficiently routing packets in an optical system
 - US patent 6611871 discloses a method of handling asynchronous information by analyzing the packet data.
 - US patent 5784377 discloses a method of SONET data carriers using virtual circuit tributaries and intermediaries
 - US patent 6317439 discloses a SONET data system with data headers and performance monitoring information

4. Any inquiry concerning this communication from the examiner should be directed to Thomas M Ho whose telephone number is (571)272-3835. The examiner can normally be reached on M-F from 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

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Gilberto Barron can be reached on **(571)272-3799**.

The Examiner may also be reached through email through Thomas.Ho6@uspto.gov

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

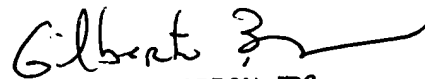
General Information/Receptionist Telephone: 571-272-2100 Fax: 571-273-8300

Customer Service Representative Telephone: 571-272-2100 Fax: 571-273-8300

TMH

September 4th, 2006

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2132


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